



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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**SED120LB100, SED120LE100,
and SED120LT100**

**120 A / 100 V
Schottky Rectifier**

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SED120

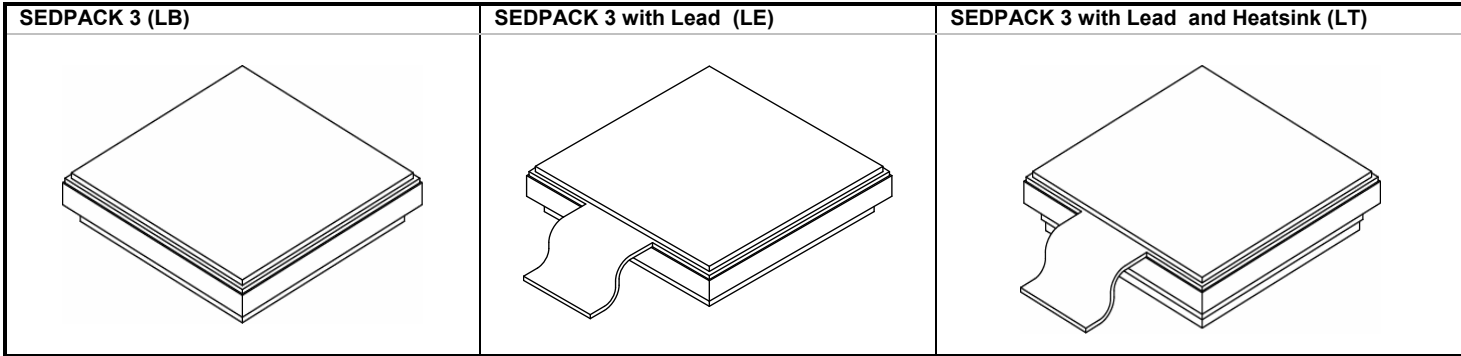
Screening ^{2/} = Not Screened
 TX = TX Level
 TXV = TXV
 S = S Level

Voltage 100 = 100 V

Package
 LB = Sedpack 3
 LE = Sedpack 3 with Lead
 LT = Sedpack 3 with Lead and Heatsink

- FEATURES:**
- 100 Volt Schottky Rectifier
 - Average Output Current 120 Amps
 - Low Reverse Leakage
 - Low Forward Voltage Drop
 - Hermetically Sealed Power Surface Mount Package
 - Guard Ring for Overvoltage Protection
 - Eutectic Die Attach
 - 175°C Operating Temperature
 - TX, TXV, and Space Level Screening Available ^{2/}. Consult Factory.

MAXIMUM RATINGS ^{3/}	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_C = 100^\circ\text{C}$)	I_O	120	Amps
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on I_O , allow Junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$)	I_{FSM}	1000	Amps
Operating & Storage Temperature	T_{OP} & T_{stg}	-55 to +175	°C
Maximum Thermal Resistance (Junction to Case)	$R_{\theta JC}$	0.3	°C/W



NOTES:
^{1/} For Ordering Information, Price, and Availability Contact Factory.
^{2/} Screened to MIL-PRF-19500.
^{3/} Unless Otherwise Specified, All Electrical Characteristics @25°C.



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ELECTRICAL CHARACTERISTICS ^{3/}	Symbol	Maximum Value	Units
Instantaneous Forward Voltage Drop ($T_A=25^\circ\text{C}$, 300 μsec pulse)	$I_F = 40 \text{ A}$ V_{F1}	0.71	V_{DC}
	$I_F = 120 \text{ A}$ V_{F2}	0.95	
Instantaneous Forward Voltage Drop (300 μsec pulse)	$T_A = 125^\circ\text{C}$, $I_F = 120 \text{ A}$ V_{F3}	0.78	V_{DC}
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μsec pulse minimum)	I_{R1}	5.0	mA
Reverse Leakage Current (Rated V_R , $T_A = 125^\circ\text{C}$, 300 μsec pulse minimum)	I_{R2}	100	mA
Junction Capacitance ($V_R = 5\text{V}$, $f = 1\text{MHz}$, $T_A = 25^\circ\text{C}$)	C_J	3200	pF

NOTES: 1/ For Ordering Information, Price, and Availability Contact Factory. 2/ Screened to MIL-PRF-19500. 3/ Unless Otherwise Specified, All Electrical Characteristics @25°C.	PIN ASSIGNMENT			
	Package	TOP	BOTTOM	LEAD
	Sedpack 3 (LB)	Anode	Cathode	---
	Sedpack 3 with Lead (LE)	Anode	Cathode	Anode
	Sedpack 3 with Lead (LT)	Anode	Cathode	Anode

